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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,725	02/28/2005	Hitoshi Okamoto	P26510	8296

7055 7590 10/31/2006

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EXAMINER	
MAKAR, KIMBERLY A	
ART UNIT	**PAPER NUMBER**
1636	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/525,725	OKAMOTO ET AL.	
	Examiner	Art Unit	
	Kimberly A. Makar	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) *9-13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/08/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's election without traverse of invention I in the reply filed on 08/03/2006 is acknowledged.

2. Claims 9-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 08/03/06.

Claim Construction

3. Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). In determining patentability of the instant claims the limitations thereof are construed as follows.

4. The limitation "sequences derived...by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency" is construed as encompassing a nucleic acid comprising any portion of any sequence capable to enhancing gene expression in sensory or motor neurons. This construction is based on the broadest reasonable interpretation of a "sequence". As there is nothing in the application to indicate a more narrow construction, the limitation is broadly interpreted as encompassing any nucleic acid sequence capable of enhancing gene expression in motor and/or sensory neurons.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

7. *Vas-Cath Inc. v. Mahurkar*, 19USPQ2d 1111, clearly states that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed.*" (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See *Vas-Cath* at page 1116).

8. The instant claims, construed as discussed herein above, embrace an isolated regulatory element that is capable of enhancing gene expression efficiency in a motor or sensory neuron, wherein the structural characteristics of the claimed regulatory element are essentially unlimited.

9. The Guidelines for Written Description state: "when there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus" (Federal Register, Vol. 66, No. 4, Column 3, page 1106). "The written

description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice..., reduction to drawings..., or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus" (MPEP §2163(3)(a)(ii)).

10. The Guidelines further state, "[s]atisfactory disclosure of a 'representative number' depends on whether one of skill in the art would recognize that the applicant was in possession of the necessary common attributes or features of the genus in view of the species disclosed" (Id. at 1106, column 3).

11. In the instant case, the application discloses 6 sequences, which, based on the discussion in Examples 1-4 is presumed to be genomic DNA upstream of the 5' upstream genomic neuronal-specific enhancer sequence for the zebrafish, human, mouse, and pufferfish Islet-1 gene. However, there is no demonstration in the disclosure that the sequence set forth as SEQ ID NO: 1-6 as defined by the broad claims 1, 2, 4 and 5 is sufficient to drive transcription in any or all motor or sensory neuronal cells as recited in the claim. Claims 1, 2, 4 and 5 are broad and read on any sequence capable of eliciting the same enhancing capabilities of the SEQ IDs listed in the claims by deletion, substitution or addition of one or more nucleotides. This includes the substitution of all but a single nucleotide from the SEQ IDs listed for an entirely different

sequence. Therefore, it is not clear that the sequences set forth in the sequence listing are actually species of the invention.

12. Even if one is to assume, *arguendo,* that the functional properties recited in the instant claims are inherent to the nucleic acids set forth as SEQ ID NO: 1-6, these species are not representative of the broad genus claimed because they clearly do not convey the necessary common attributes or features of essentially any nucleic acid having the recited function.

13. Furthermore, with regard to the "relevant identifying characteristics" of the claimed invention, the specification provides no disclosure of the structural features that define the function recited in the claims. As stated in MPEP 2163(I)(A), a biomolecule sequence described only by a functional characteristic, without any known or disclosed correlation between that function and the structure of the sequence, normally is not a sufficient identifying characteristic for written description purposes. Thus, applications that seek to claim biological molecules having a defined function and broadly divergent structure must disclose a correlation between that function and a corresponding structure. Although example 2 identifies high homology between SEQ ID NO: 1-4 in base pairs 235-560, 204-528, 206-530 and 211-555 respectively there is no evidence that these specific sequences are sufficient to define a genus of any nucleic acid capable of driving transcription in any or all motor or sensory neuronal cells as presently claimed. Therefore, the application also fails to provide the relevant identifying characteristics of the claimed invention.

14. An adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself. It is not sufficient to define DNA solely by its principal biological property (i.e., it is capable of driving transcription in a neuronal-specific manner) because disclosure of no more than that, as in the instant case, is simply a wish to know the identity of any DNA with that biological property. Also, naming a type of material generically known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material. Thus, claiming all DNA's that achieve a result without defining what means will do is not in compliance with the description requirement. Rather, it is an attempt to preempt the future before it has arrived. (See *Fiers v. Revel,* 25 USPQ2d 1601 (CA FC 1993) and *Regents of the Univ. Calif. v. Eli Lilly & Co.,* 43 USPQ2d 1398 (CA FC, 1997)).

15. In view of these considerations, a skilled artisan would not have viewed the teachings of the specification as sufficient to show that the applicant was in possession of the claimed invention because it does not provide adequate written description for the broad class of any nucleic acid capable of driving transcription in a motor or sensory neuron beyond the scope of a nucleic acid selected from the group consisting of a nucleic acid comprising SEQ ID NO: 1-6. Therefore, the claims are properly rejected under 35 U.S.C. §112, first paragraph, as lacking adequate written description.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Meng et al (Promoter analysis in living zebrafish embryos identifies a cis-acting motif required for neuronal expression of GATA-2). Claims 1-8 recite an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4; (b) DNA consisting of a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4 and capable of enhancing gene expression efficiency in motor neurons (claim 1). Claim 2 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO: 2, a nucleotide sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO: 4; (b) DNA consisting of a nucleotide sequence derived any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID

NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO: 2, a nucleotide sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO: 4 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO: 2, a nucleotide sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO: 4 and capable of enhancing gene expression efficiency in motor neurons. The enhancer is further limited wherein the motor neurons dorsally extend axons (claim 3). Claim 4 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 5; (b) DNA consisting of a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 5 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in sensory neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 5 and capable of enhancing gene expression efficiency in sensory neurons. Claim 5 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6; (b) DNA consisting of

a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons that ventrally extend axons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6 and capable of enhancing gene expression efficiency in motor neurons that ventrally extend axons. The enhancer of claim 1 is further limited to comprise a vector (claim 6) further comprising a promoter and a gene (claim 7). The vector of claim 6 is further limited to comprise a transgenic cell line (claim 8).

18. Claims 1, 2, 4 and 5 are broad and read on any sequence capable of eliciting the same enhancing capabilities of the SEQ IDs listed in the claims by deletion, substitution or addition of one or more nucleotides. This includes the substitution of all but a single nucleotide from the SEQ IDs listed for an entirely different sequence.

19. Meng anticipates claims 1-8. Meng teaches transgenic zebrafish that express green fluorescent protein under the control of the GATA-2 enhancer/promoter (see abstract). Meng teaches the GATA-2 promoter/enhancer was cloned from zebrafish genomic libraries. Meng teaches the identity of a 31 base pair sequence conferring neuronal enhancer activity comprising the DNA motif CCCTCCT.

20. Specifically, Meng teaches that the P1-GM2 vector which comprises the GATA-2 promoter and additional 5' upstream sequences operatively linked to a GFP reporter gene was injected into single cell embryos (see methods section page 6268) which was capable of driving GFP expression consistently in ventral mesoderm and the dorsal

shield (albeit it rarely) (Results section, page 6268). Additionally, Meng teaches that the P1-GM2 vector was capable of driving GFP expression in both motor neurons, as well as sensory neurons (brain and eyes) (see figure 2). Meng teaches the identity of a 31 base pair sequence conferring neuronal enhancer activity comprising the DNA motif CCCTCCT is a segment within the P1 vector, as all subsequent enhancer mapping stemmed from this vector (see figures 1 and 3).

21. Meng teaches the 31 base pair segment that confers neuronal specificity (page 6270) and further identifies the DNA motif of CCCTCCT as essential for neuronal specificity (see abstract). Meng anticipates an enhancer according to SEQ ID NO: 1-5 by nucleotide substitution that enhances gene expression in motor and sensory neurons. Meng teaches that this enhancer is further combined in a vector comprising a GATA-2 promoter and a green fluorescent protein encoding gene and is transfected into cells. Meng teaches that this enhancer region drives axon outgrowth dorsally and ventrally in both motor and sensory neurons. Thus Meng teaches the claimed invention.

22. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Higashijima et al (Visualization of Cranial Motor Neurons in live Transgenic Zebrafish Expressing Green Fluorescent Protein Under the Control of the Islet-1 Promoter/Enhancer. The Journal of Neuroscience, 2000. 20(1):206-218) listed in applicants 1449 IDS form dated 06/08/2005, as well as by Meng et all (see previous discussion). Claims 1-8 recite an enhancer consisting of the following (a), (b) or (c): (a)

DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4; (b) DNA consisting of a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 1 to 4 and capable of enhancing gene expression efficiency in motor neurons (claim 1). Claims 2 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO: 2, a nucleotide sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO: 4; (b) DNA consisting of a nucleotide sequence derived any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO: 2, a nucleotide sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO: 4 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of a nucleotide sequence consisting of nucleotides 235-560 of SEQ ID NO: 1, a nucleotide sequence consisting of nucleotides 204 to 528 of SEQ ID NO:2, a nucleotide

sequence consisting of nucleotides 206 to 530 of SEQ ID NO: 3, or a nucleotide sequence consisting of nucleotides 211 to 555 of SEQ ID NO:4 and capable of enhancing gene expression efficiency in motor neurons. The enhancer is further limited wherein the motor neurons dorsally extend axons (claim 3). Claim 4 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 5; (b) DNA consisting of a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 5 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in sensory neurons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 5 and capable of enhancing gene expression efficiency in sensory neurons. Claim 5 recites an enhancer consisting of the following (a), (b) or (c): (a) DNA consisting of the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6; (b) DNA consisting of a nucleotide sequence derived from the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6 by deletion, substitution, or addition of one or more nucleotides and capable of enhancing gene expression efficiency in motor neurons that ventrally extend axons; or (c) DNA consisting of a nucleotide sequence capable of hybridizing to a nucleotide sequence complementary to the nucleotide sequence as shown in any one of SEQ ID NO: 5 or 6 and capable of enhancing gene expression efficiency in motor neurons that ventrally extend axons. The enhancer of claim 1 is further limited to comprise a vector

(claim 6) further comprising a promoter and a gene (claim 7). The vector of claim 6 is further limited to comprise a transgenic cell line (claim 8).

23. Claims 1, 2, 4 and 5 are broad and read on any sequence capable of eliciting the same enhancing capabilities of the SEQ IDs listed in the claims by deletion, substitution or addition of one or more nucleotides. This includes the substitution of all but a single nucleotide from the SEQ IDs listed for an entirely different sequence.

24. Higashijima anticipates claims 1-8. Higashijima teaches transgenic zebrafish that express green fluorescent protein under the control of the Islet-1 enhancer/promoter (see abstract). Higashijima teaches the Islet-1 promoter/enhancer was cloned from zebrafish genomic libraries. Higashijima teaches the genomic DNA sequences derived for their experiments were compared to the previously published cDNA Islet-1 gene (see materials and methods, page 207). Higashijima teaches the 5' region of the Islet-1 gene contained 4.1 kb of the 5' upstream genomic region and approximately 30 base pairs of the 5' untranslated region of the Islet-1 gene, labeled the ICP region, the CM region and the SS regions (see materials and methods and figure 1, page 207).

25. Higashijima teaches the Islet-1 core promoter ICP region is cloned into a plasmid vector to drive the GFP gene (see figure 1 C). In order to determine enhancer regions within the genomic region of Islet-1, EcoRI fragments of the genomic region were then subcloned upstream of the ICP core promoter region. Higashijima teaches that all EcoRI fragments were tested for enhancer activity (see figure 1A). Higashijima teaches the ICP-GFP plasmid is injected into one cell stage zebrafish embryos for transient

transfection assays (see material and methods, page 208). Higashijima teaches that the Islet-1 CM region acts as an enhancer in branchiomotor neurons innervating the pharyngeal arches and the SS fragment which enhances expression in the trigeminal ganglion cells and the Rohon-Beard cells in the spinal cord (page 210). Higashijima teaches that transgenic fish with the CM enhancer region driving the ICP-GFP construct express GFP in cranial motor neurons, and also some branchiomeric sensory ganglion cells (page 210).

26. Higashijima teaches the CM-ICP-GFP construct was used to determine the axonal outgrowth of the craniofacial motor and sensory neurons. Specifically, the motor and sensory neurons follow the same outgrowth pathway in amniotes. Higashijima states "the centrally projecting axons initially extend dorsoposteriorly, turn medially into the hindbrain, and then posteriorly within the hindbrain (Figs 7A, a-fs; 9C,D) to terminate in the dorsoposterior part of the hindbrain by day 3 (Fig. 9C, C, arrowheads). The peripherally extending axons of the sensory nVIII neurons diverge into two nerves as they extend in a ventroanterior direction (Fig. 6C, a,b), but they all eventually terminate around the mouth" (page 215). Thus Higashijima teaches an enhancer according to SEQ ID NO: 1, 5 and 6 by nucleotide substitution that enhances gene expression in motor and sensory neurons. Higashijima teaches that this enhancer is further combined in a vector comprising an ICP core promoter and a green fluorescent protein encoding gene and is transfected into cells. Higashijima teaches that this enhancer region drives axon outgrowth dorsally in motor neurons and ventrally in sensory neurons. Thus Higashijima teaches the claimed invention.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly A. Makar, Ph.D. whose telephone number is 571-272-4139. The examiner can normally be reached on 8AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, Ph.D. can be reached on (571) 272-0781. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAM/10/04/06

DANIEL M. SULLIVAN
PATENT EXAMINER